

1. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{3x + 7}{8} - \frac{-7x + 7}{5} = \frac{4x - 7}{2}$$

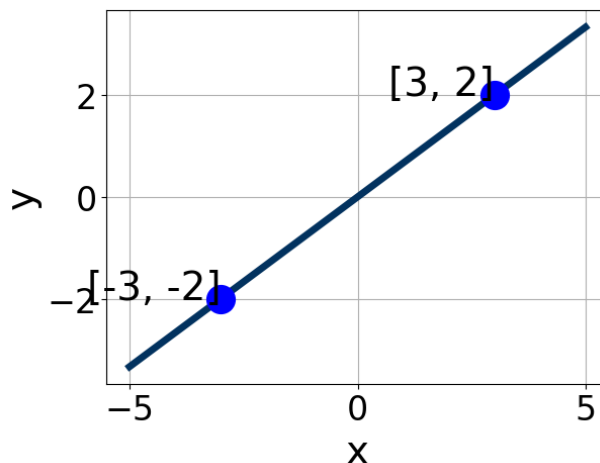
- A. $x \in [21.67, 26.67]$
- B. $x \in [13.22, 15.22]$
- C. $x \in [28.11, 33.11]$
- D. $x \in [-2.5, 0.5]$
- E. There are no real solutions.

2. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $4x - 7y = 9$ and passing through the point $(10, -5)$.

- A. $m \in [-2.94, -1.6]$ $b \in [11.5, 16.5]$
- B. $m \in [-2.94, -1.6]$ $b \in [-14.5, -9.5]$
- C. $m \in [-2.94, -1.6]$ $b \in [-18, -14]$
- D. $m \in [-1.18, 0.03]$ $b \in [11.5, 16.5]$
- E. $m \in [1.29, 2.87]$ $b \in [-23.5, -16.5]$

3. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [1.4, 2.2]$, $B \in [2.31, 3.13]$, and $C \in [0, 1]$
- B. $A \in [-1.1, 1.8]$, $B \in [-2.36, -0.31]$, and $C \in [0, 1]$
- C. $A \in [1.4, 2.2]$, $B \in [-4.83, -2.98]$, and $C \in [0, 1]$
- D. $A \in [-1.1, 1.8]$, $B \in [0.09, 1.2]$, and $C \in [0, 1]$
- E. $A \in [-2.1, -1.8]$, $B \in [2.31, 3.13]$, and $C \in [0, 1]$

4. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

$$(-6, 6) \text{ and } (-11, -10)$$

- A. $m \in [0.2, 4.2]$ $b \in [-27.2, -20.2]$
- B. $m \in [0.2, 4.2]$ $b \in [6, 16]$
- C. $m \in [0.2, 4.2]$ $b \in [1, 2]$
- D. $m \in [0.2, 4.2]$ $b \in [24.2, 27.2]$
- E. $m \in [-3.2, -2.2]$ $b \in [-48.2, -42.2]$

5. Solve the equation below. Then, choose the interval that contains the solution.

$$-17(-16x - 18) = -7(-5x - 9)$$

- A. $x \in [-1.71, -1.38]$
- B. $x \in [-1.38, -1.03]$
- C. $x \in [-1.04, -0.79]$
- D. $x \in [1.39, 1.7]$
- E. There are no real solutions.

6. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

$$(9, -6) \text{ and } (-2, -2)$$

- A. $m \in [-1.08, -0.24]$ $b \in [-0.3, 0.13]$
- B. $m \in [-1.08, -0.24]$ $b \in [2.21, 3.36]$
- C. $m \in [-0.18, 1.45]$ $b \in [-1.84, -0.28]$
- D. $m \in [-1.08, -0.24]$ $b \in [-15.44, -14.63]$
- E. $m \in [-1.08, -0.24]$ $b \in [-2.91, -2.1]$

7. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{-3x + 8}{2} - \frac{-3x - 3}{4} = \frac{-8x - 4}{7}$$

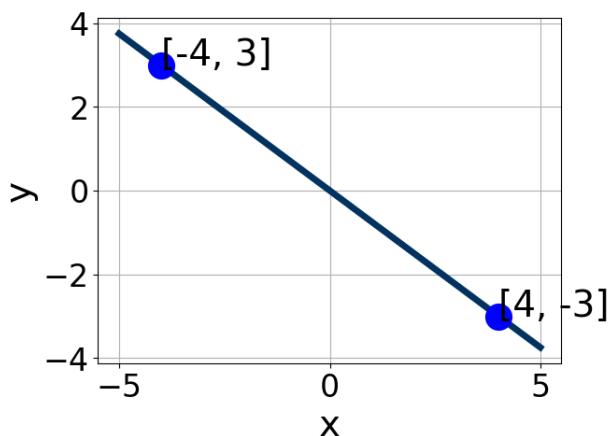
- A. $x \in [-9.73, -7.73]$
- B. $x \in [-1.67, 1.33]$
- C. $x \in [-39.18, -34.18]$
- D. $x \in [-13.55, -10.55]$
- E. There are no real solutions.

8. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $5x + 9y = 9$ and passing through the point $(2, 9)$.

- A. $m \in [1.63, 2.26]$ $b \in [-6.8, -4.4]$
- B. $m \in [0.53, 0.7]$ $b \in [2.5, 6.9]$
- C. $m \in [1.63, 2.26]$ $b \in [6.8, 7.5]$
- D. $m \in [1.63, 2.26]$ $b \in [2.5, 6.9]$
- E. $m \in [-2.2, -1.18]$ $b \in [11.5, 12.7]$

9. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [2.2, 4.6]$, $B \in [-5.6, -2.4]$, and $C \in [0, 4]$
- B. $A \in [0.3, 1]$, $B \in [-0.8, 1.4]$, and $C \in [0, 4]$
- C. $A \in [-5.2, -2.4]$, $B \in [-5.6, -2.4]$, and $C \in [0, 4]$
- D. $A \in [2.2, 4.6]$, $B \in [3.7, 4.6]$, and $C \in [0, 4]$
- E. $A \in [0.3, 1]$, $B \in [-2, -0.5]$, and $C \in [0, 4]$

10. Solve the equation below. Then, choose the interval that contains the solution.

$$-10(-8x - 4) = -15(6x - 12)$$

- A. $x \in [-1.68, -0.73]$
 - B. $x \in [0.72, 1.17]$
 - C. $x \in [1.2, 1.78]$
 - D. $x \in [21.99, 22.46]$
 - E. There are no real solutions.
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11. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{5x + 3}{4} - \frac{7x + 5}{8} = \frac{5x + 4}{6}$$

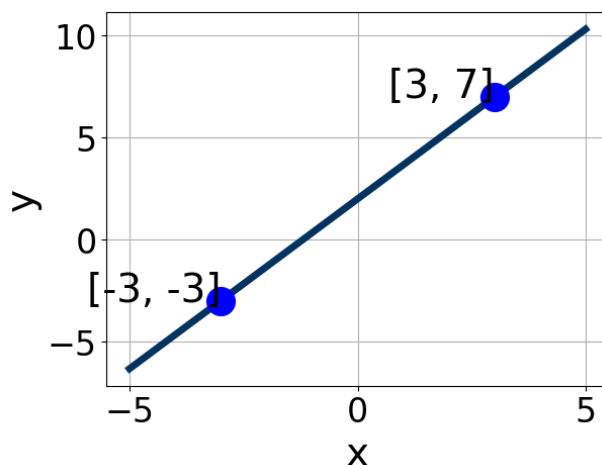
- A. $x \in [-13.2, -11.3]$
 - B. $x \in [1.2, 1.8]$
 - C. $x \in [-1.7, -0.9]$
 - D. $x \in [-1, 0.6]$
 - E. There are no real solutions.
-

12. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $3x + 4y = 4$ and passing through the point $(-7, 3)$.

- A. $m \in [0.97, 1.75]$ $b \in [9, 12]$
 - B. $m \in [-1.67, -0.91]$ $b \in [-7.33, -5.33]$
 - C. $m \in [0.97, 1.75]$ $b \in [-19.33, -11.33]$
 - D. $m \in [0.66, 1.09]$ $b \in [12.33, 15.33]$
 - E. $m \in [0.97, 1.75]$ $b \in [12.33, 15.33]$
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13. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [3.8, 6.1]$, $B \in [1.6, 3.2]$, and $C \in [5.2, 6.9]$
 B. $A \in [-6, -4.7]$, $B \in [1.6, 3.2]$, and $C \in [5.2, 6.9]$
 C. $A \in [-2.8, -1.3]$, $B \in [-1.96, 0.04]$, and $C \in [-5.7, -1]$
 D. $A \in [-2.8, -1.3]$, $B \in [-0.43, 1.42]$, and $C \in [1.2, 3.9]$
 E. $A \in [3.8, 6.1]$, $B \in [-5.33, -1.85]$, and $C \in [-7.2, -4.8]$

14. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

$$(-11, 8) \text{ and } (2, 2)$$

- A. $m \in [-1.54, 0.12]$ $b \in [-4.35, -2.3]$
 B. $m \in [-1.54, 0.12]$ $b \in [18.24, 19.45]$
 C. $m \in [-1.54, 0.12]$ $b \in [-0.88, 0.95]$
 D. $m \in [-1.54, 0.12]$ $b \in [2.36, 3.43]$
 E. $m \in [-0.35, 1.07]$ $b \in [1.04, 1.74]$

15. Solve the equation below. Then, choose the interval that contains the solution.

$$-3(12x + 17) = -4(18x - 7)$$

- A. $x \in [-0.46, 0.59]$
 - B. $x \in [-1.71, -0.3]$
 - C. $x \in [0.58, 1.15]$
 - D. $x \in [2.03, 2.62]$
 - E. There are no real solutions.
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16. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

(11, 2) and (5, -3)

- A. $m \in [-0.2, 1.7]$ $b \in [-8.08, -7.75]$
 - B. $m \in [-0.2, 1.7]$ $b \in [6.77, 8.18]$
 - C. $m \in [-0.2, 1.7]$ $b \in [-9.51, -8.91]$
 - D. $m \in [-0.2, 1.7]$ $b \in [-7.19, -6.58]$
 - E. $m \in [-3.5, -0.4]$ $b \in [0.75, 1.58]$
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17. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{5x - 3}{6} - \frac{7x + 4}{3} = \frac{-5x - 5}{4}$$

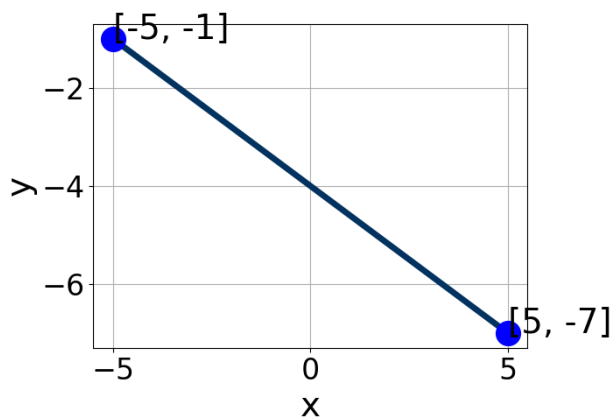
- A. $x \in [7.5, 9.7]$
 - B. $x \in [-1, 0.4]$
 - C. $x \in [-8.8, -6.4]$
 - D. $x \in [-2.5, -1.5]$
 - E. There are no real solutions.
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18. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $7x + 3y = 8$ and passing through the point $(-8, 2)$.

- A. $m \in [2.15, 2.99]$ $b \in [4.8, 6.6]$
- B. $m \in [0.34, 0.8]$ $b \in [8.3, 12.4]$
- C. $m \in [0.34, 0.8]$ $b \in [-5.9, -3]$
- D. $m \in [0.34, 0.8]$ $b \in [4.8, 6.6]$
- E. $m \in [-0.91, -0.08]$ $b \in [-1.6, -0.9]$

19. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [-0.2, 2.6]$, $B \in [0.71, 1.37]$, and $C \in [-8, -1]$
- B. $A \in [1.9, 5.1]$, $B \in [-5.68, -4.25]$, and $C \in [20, 25]$
- C. $A \in [-0.2, 2.6]$, $B \in [-1.54, 0.53]$, and $C \in [4, 9]$
- D. $A \in [-3.8, -2.3]$, $B \in [-5.68, -4.25]$, and $C \in [20, 25]$
- E. $A \in [1.9, 5.1]$, $B \in [4.46, 6.38]$, and $C \in [-21, -17]$

20. Solve the equation below. Then, choose the interval that contains the solution.

$$-13(15x - 11) = -4(-6x + 5)$$

- A. $x \in [0.53, 0.57]$
 - B. $x \in [0.74, 0.76]$
 - C. $x \in [-0.59, -0.55]$
 - D. $x \in [0.71, 0.74]$
 - E. There are no real solutions.
-

21. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{4x + 3}{4} - \frac{4x - 7}{3} = \frac{6x - 7}{6}$$

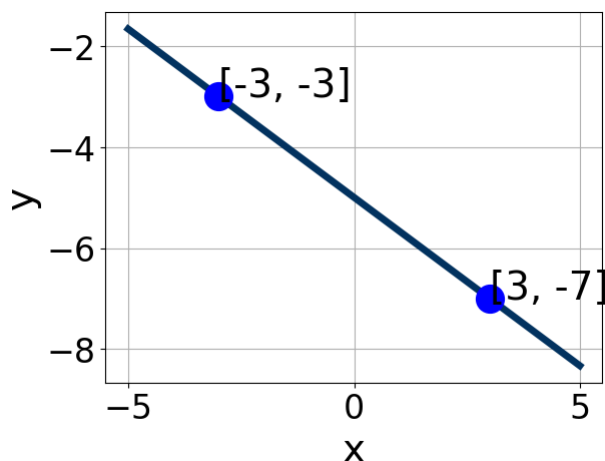
- A. $x \in [-0.78, -0.3]$
 - B. $x \in [3.1, 3.85]$
 - C. $x \in [12.36, 13.67]$
 - D. $x \in [0, 1.28]$
 - E. There are no real solutions.
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22. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $9x + 7y = 7$ and passing through the point $(-8, -5)$.

- A. $m \in [0.39, 1.13]$ $b \in [-1.5, 0.4]$
 - B. $m \in [-1.48, -0.33]$ $b \in [-14.6, -10.5]$
 - C. $m \in [0.39, 1.13]$ $b \in [0.3, 2]$
 - D. $m \in [0.39, 1.13]$ $b \in [2.4, 3.9]$
 - E. $m \in [0.87, 1.62]$ $b \in [0.3, 2]$
-

23. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [0.4, 0.9]$, $B \in [-1.1, -0.84]$, and $C \in [5, 6]$
- B. $A \in [0.8, 2.4]$, $B \in [-3.16, -2.12]$, and $C \in [9, 17]$
- C. $A \in [0.8, 2.4]$, $B \in [1.85, 3.9]$, and $C \in [-17, -8]$
- D. $A \in [-2.2, -1.2]$, $B \in [-3.16, -2.12]$, and $C \in [9, 17]$
- E. $A \in [0.4, 0.9]$, $B \in [-0.47, 1.93]$, and $C \in [-8, 1]$

24. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

$(-2, -5)$ and $(6, 9)$

- A. $m \in [0.75, 3.75]$ $b \in [-0.24, 1.69]$
- B. $m \in [0.75, 3.75]$ $b \in [-3.9, -2.15]$
- C. $m \in [-7.75, -0.75]$ $b \in [19.05, 20.67]$
- D. $m \in [0.75, 3.75]$ $b \in [2.13, 4.37]$
- E. $m \in [0.75, 3.75]$ $b \in [-1.63, -0.94]$

25. Solve the equation below. Then, choose the interval that contains the solution.

$$-2(-13x - 11) = -14(-5x - 18)$$

- A. $x \in [-6, -4.9]$
 - B. $x \in [-4, -2.6]$
 - C. $x \in [-8, -6]$
 - D. $x \in [6, 6.9]$
 - E. There are no real solutions.
-

26. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

$$(7, -9) \text{ and } (-7, -11)$$

- A. $m \in [-1.06, -0.12]$ $b \in [-14, -10.2]$
 - B. $m \in [0.11, 0.46]$ $b \in [8.9, 10.1]$
 - C. $m \in [0.11, 0.46]$ $b \in [-10.3, -8.9]$
 - D. $m \in [0.11, 0.46]$ $b \in [-16.5, -15.2]$
 - E. $m \in [0.11, 0.46]$ $b \in [-6, -3.8]$
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27. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{5x + 6}{7} - \frac{6x + 9}{4} = \frac{-9x + 9}{8}$$

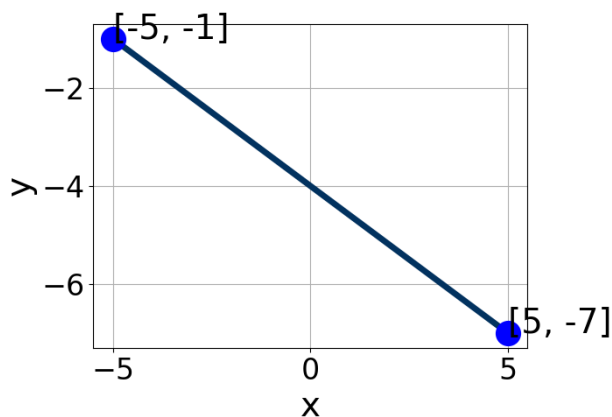
- A. $x \in [32.37, 36.37]$
 - B. $x \in [-0.69, 2.31]$
 - C. $x \in [-7.84, -4.84]$
 - D. $x \in [6.42, 9.42]$
 - E. There are no real solutions.
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28. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Parallel to $3x + 7y = 10$ and passing through the point $(-2, 4)$.

- A. $m \in [-0.55, -0.28]$ $b \in [5.6, 6.9]$
- B. $m \in [0.05, 0.95]$ $b \in [4, 5.3]$
- C. $m \in [-0.55, -0.28]$ $b \in [-3.3, -1.6]$
- D. $m \in [-0.55, -0.28]$ $b \in [1.3, 4.7]$
- E. $m \in [-2.72, -2.15]$ $b \in [1.3, 4.7]$

29. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [-3.54, -2.69]$, $B \in [-5.8, -2.9]$, and $C \in [18, 23]$
- B. $A \in [2.92, 3.89]$, $B \in [-5.8, -2.9]$, and $C \in [18, 23]$
- C. $A \in [0.48, 1.46]$, $B \in [-3.5, -0.2]$, and $C \in [2, 5]$
- D. $A \in [0.48, 1.46]$, $B \in [-0.1, 4.1]$, and $C \in [-4, -2]$
- E. $A \in [2.92, 3.89]$, $B \in [2.4, 6.8]$, and $C \in [-20, -15]$

30. Solve the equation below. Then, choose the interval that contains the solution.

$$-19(6x - 13) = -17(8x - 18)$$

- A. $x \in [25.07, 25.17]$
 - B. $x \in [-25.73, -24.72]$
 - C. $x \in [2.45, 2.86]$
 - D. $x \in [1.77, 2.63]$
 - E. There are no real solutions.
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